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| APPLICATION NO.                                    | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO |
|--|----------------|----------------------|-------------------------|-----------------|
| 10/082,338   | 02/26/2002     | Masahiro Aoki        | ASAM-0042 6426          |                 |
| 7:   | 590 09/29/2003 |                      |                         |                 |
| REED SMITH LLP Suite 1400 3110 Fairview Park Drive |                |                      | EXAMINER '              |                 |
|  |                |                      | LEUNG, QUYEN PHAN       |                 |
| Falls Church, V                                    | A 22042        |                      | ART UNIT                | PAPER NUMBER    |
|  |                |                      | 2828                    |                 |
|  |                |                      | DATE MAILED: 09/29/2003 |                 |

Please find below and/or attached an Office communication concerning this application or proceeding.

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|   | Application No.         | Applicant(s)  |  |  |  |  |
|---|-------------------------|---|--|--|--|--|
|   | 10/082,338              | AOKI, MASAHIRO                                      |  |  |  |  |
| Office Action Summary   | Examiner                | Art Unit  |  |  |  |  |
|   | Quyen P. Leung          | 2828  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |                         |   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |                         |   |  |  |  |  |
| 1) Responsive to communication(s) filed on  | _·                      |   |  |  |  |  |
| 2a)☐ This action is <b>FINAL</b> . 2b)⊠ Thi   | s action is non-final.  |   |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |                         |   |  |  |  |  |
| closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. <b>Disposition of Claims</b>  |                         |   |  |  |  |  |
| 4)⊠ Claim(s) <u>1-20</u> is/are pending in the application.   |                         |   |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |                         |   |  |  |  |  |
| 5) Claim(s) is/are allowed.   |                         |   |  |  |  |  |
| 6)⊠ Claim(s) <u>1-20</u> is/are rejected.   | BEST                    | AVAILABLE COPY                                      |  |  |  |  |
| 7) Claim(s) is/are objected to.   |                         |   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.   |                         |   |  |  |  |  |
| Application Papers  |                         |   |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |                         |   |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  |                         |   |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.   |                         |   |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |                         |   |  |  |  |  |
| 12) The oath or declaration is objected to by the Examiner.   |                         |   |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |                         |   |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |                         |   |  |  |  |  |
| a)⊠ All b)□ Some * c)□ None of:   |                         |   |  |  |  |  |
| 1.⊠ Certified copies of the priority documents have been received.  |                         |   |  |  |  |  |
| Certified copies of the priority documents have been received in Application No   |                         |   |  |  |  |  |
| Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  |                         |   |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |                         |   |  |  |  |  |
| a) The translation of the foreign language provisional application has been received.   |                         |   |  |  |  |  |
| 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  |                         |   |  |  |  |  |
| Attachment(s)   |                         |   |  |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.  | 5) Notice of Informal F | (PTO-413) Paper No(s)  Patent Application (PTO-152) |  |  |  |  |

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#### **DETAILED ACTION**

### **Drawings**

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a clad region formed on the opposite side of the substrate not having the core region", the horizontal direction, the vertical direction and "a stripe width is modulated in the **vertical** direction against the optical axis" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

## Claim Objections

2. Claims 4 and 14 are objected to because of the following informalities: they lack an ending period. Appropriate correction is required.

# Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites the limitation "a clad region formed on the opposite side of the substrate not having the core region" in lines 3-5. It is not clear where this is support for this in the specification. Furthermore, claim 1 recites "a stripe width is modulated in the **vertical** direction against the optical axis" in lines 9-11. Claims 2-20 are rejected for the same reasons.

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- 5. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 6. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "where a lateral mode is identical" in the last paragraph. It is unclear to what it should be identical. Claims 2-20 are rejected for the same reasons.

Claim 1 recites the limitation "the gain region" in the last paragraph. There is lack of antecedent basis for that limitation. Claims 2-20 are rejected for the same reasons.

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Claim 1 recites the limitation "the lateral width" in the last paragraph. There is lack of antecedent basis for that limitation. Claims 2-20 are rejected for the same reasons.

Claim 4 recites a range of lengths L in the last line, but the little L, i.e. "I", has not been defined.

Claim 14 recites a range of lengths L in the last line, but the little L, i.e. "I", has not been defined.

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#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quyen P. Leung whose telephone number is (703) 308-0545. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Qu**∲**en P. Leung Primary Examiner Art Unit 2828

**QPL**